UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,930	04/30/2001	Mustafa Uysal	10003526-1	9895

7590	12/23/2004	

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EXAMINER
JONES, HUGH M

ART UNIT	PAPER NUMBER
2128	

DATE MAILED: 12/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/843,930	UYSAL ET AL.
	Examiner	Art Unit
	Hugh Jones	2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

P riod for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _30 April 2001_.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-10,19 and 20_ is/are rejected.

7) ☒ Claim(s) _11-18_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _30 April 2001_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
   application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _4/30/01_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-20 of U.S. Application 09/843,930 are pending.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3.   Claims 19-20 are rejected under 35 U.S.C. 101 because **the claims recite a computer program product.** It should be noted that code (i.e., a computer software program) does not do anything per se. Instead, it is the code stored on a computer that, *when executed*, instructs the computer to perform various functions. The following claim is a generic example of a proper computer program product claim;

A computer program product embodied on a computer-readable medium and comprising code that, when executed, causes a computer to perform the following:
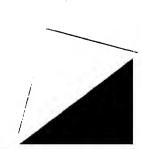
> Function A
>
> Function B

Function C, etc...

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

5.   A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-10, 19-20 are rejected under 35 U.S.C. 102(b) as being clearly

anticipated by Lee et al. (of record).

7.   Lee et al. disclose performance modeling of disk arrays, including RAID systems

(section 2), component modeling (section 3), calibration and verification/validation

(section 4).

8.   Claims 1, 4-6, 9-10, 19-20 are rejected under 35 U.S.C. 102(b) as being clearly

anticipated by Shriver et al. (of record) or Lynch et al..

9.   Shriver et al. disclose disclose performance modeling of disks, component

modeling and workload specifications (sections 2-3), models (section 4), calibration

and verification/validation (section 5).

10.   Lynch et al. disclose a generative approach for **configuring systems such that

a system may be configured based on component or resource requests**, or input in

the form of need. The present invention provides a **constraint-based configuration

system using a structural model hierarchy**. The **structural aspects of the model

provide the ability to define a model element as being contained in, or by, another

model element**. In addition, the structural model provides the ability to identify logical

datatype and physical interconnections between elements and establish connections

between elements. To configure a system, the present invention accepts input in the

form of requests (e.g., **component or resource**) or **needs**, such as an expression of a

need for a desktop computer system to be used in a CAD (i.e., computer-aided design)

environment. Using this information, the present invention **configures a system by

identifying the resourc   and component needs, constraints imposed on or by the**

resources or components identified, and the structural aspects of the system.

See particularly fig. 2, 5-7, 12 and corresponding text.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

12.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

13.   Claims 2-3, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shriver et al. or Lynch et al. in view of Lee et al. (of record).

14.   Shriver et al. disclose disclose performance modeling of disks, component

modeling and workload specifications (sections 2-3), models (section 4), calibration

and verification/validation (section 5).

15.   Lynch et al. disclose a generative approach for **configuring systems such that**

a system may be configured based on component or resource requests, or input in

the form of need. The present invention provides a **constraint-based configuration system using a structural model hierarchy**. The **structural aspects of the model provide the ability to define a model element as being contained in, or by, another model element**. In addition, the structural model provides the ability to identify logical datatype and physical interconnections between elements and establish connections between elements. To configure a system, the present invention accepts input in the form of requests (e.g., **component or resource**) or **needs**, such as an expression of a need for a desktop computer system to be used in a CAD (i.e., computer-aided design) environment. Using this information, the present invention **configures a system by identifying the resource and component needs, constraints imposed on or by the resources or components identified, and the structural aspects of the system**. See particularly fig. 2, 5-7, 12 and corresponding text.

16.   The base references do not expressly disclose that the intended use is for disk arrays.

17.   Lee et al. disclose performance modeling of disk arrays, including RAID systems (section 2), component modeling (section 3), calibration and verification/validation (section 4).

18.   It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the base references to extend the modeling from single disks to disk arrays because 1) Shriver et al. note the similarity to disk array models (col. 2, page 190), 2) Shriver indicates that future work will include modeling of disk arrays (col. 1,

page 191), and 3) Lee et al. indicate that disk arrays are becoming more important and

offer higher I/O performance over individual disks (col. 1, page 98)

Allowable Subject Matter

19.   Claims 11-18 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims. The prior art of record does not disclose or

suggest combination of hierarchy, constraints, and transforms, in the context of the

claims.

Conclusion

20.   Any inquiry concerning this communication or earlier communications

from the examiner should be:

directed to:

Dr. Hugh Jones telephone number (571) 272-3781, Monday-Thursday 0830 to 0700 ET,

or   the examiner's supervisor, Jean Homere, telephone number (571) 272-3780. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry)

or   (703) 308-1396 (for informal or draft communications, please label *"PROPOSED"* or *"DRAFT"*).

Dr. Hugh Jones

Primary Patent Examiner

December 11, 2004